

LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO.	APPLICATION NO.
	7682-108-999	10/722,045
	APPLICANT	
	DeJong et al.	
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U.S. PATENT DOCUMENTS

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A05	5,869,036	2/9/99	Belshe et al.	
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A12	2003-0232326	12/18/2003	Fouchier et al.	
A13	2003-0232061	12/18/2003	Fouchier et al.	
A14	2004-0005544	1/8/2004	Fouchier et al.	
A15	2005-0118195	6/2/2005	De Jong et al.	
A16	2005-0142148	06/30/2005	Fouchier et al.	
A17	2005-0019891	01/27/2005	Fouchier et al.	

FOREIGN PATENT DOCUMENTS

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B21	WO 93/14207	7/22/93	Connaught Laboratories		
B22	WO 97/34008	9/18/97	Cyanamid Iberica, S.A.		
B23	WO 01/04320	1/18/01	The Government of the U.S.A.		
B24	WO 03/043587	5/30/03	The United States of America		
B25	WO 03/097089	11/27/03	Lohmann Animal Health GmbH & Co		
B26	WO 04/057021	7/08/04	Universite Laval		

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C129	COOK JK, 2000, "Avian rhinotracheitis," Rev. Sci. Tech. 19(2):602-613	
C130	CROOKSHANKS and BELSHE, 1984, Evaluation of cold-adapted and temperature-sensitive mutants of parainfluenza virus type 3 in weanling hamsters. J Med Virol. 13(3):243-249	

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Examiner Initials		(Include name of the author (in CAPITAL LETTERS), Title, Date, Pertinent Pages, Etc.)	T
	C131	DIMOCK and COLLINS, 1993, Rescue of synthetic analogs of genomic RNA and replicative-intermediate RNA of human parainfluenza virus type 3. J Virol. 67(5):2772-8	
	C132	FEIGEN et al. eds., 1987, <i>Textbook of Pediatric Infectious Diseases</i> , WB Saunders, Philadelphia, pp 1653-1675	
	C133	GLICKMAN et al., 1988, "Quantitative basic residue requirements in the cleavage-activation site of the fusion glycoprotein as a determinant of virulence for Newcastle disease virus," J. Virol. 62: 354-356	
	C134	GONZALEZ-REYES et al., 2001, "Cleavage of the human respiratory syncytial virus fusion protein at two distinct sites is required for activation of membrane fusion," PNAS 98: 9859-9864	
	C135	HALLER et al. 2000, Expression of the surface glycoproteins of human parainfluenza virus type 3 by bovine parainfluenza virus type 3, a novel attenuated virus vaccine vector. J Virol. 74(24):11626-11635	
	C136	HAMELIN et al., 2004, "Human metapneumovirus: a new player among respiratory viruses," Clinical Infectious Diseases 38: 983-990	
	C137	HERFST, 2004, "Recovery of human metapneumovirus genetic lineages A and B from cloned cDNA," J. Virol. 78:8264-8270	
	C138	HOFFMANN et al. 2000, Unidirectional RNA polymerase I-polymerase II transcription system for the generation of influenza A virus from eight plasmids. J Gen Virol. (Pt 12):2843-2847	
	C139	HOWE, 2002, "Australian find suggests worldwide reach for metapneumovirus," Lancet Infect. Dis. 2:202	
	C140	IJPMA et al., 2004, "Human metapneumovirus infection in hospital referred South African children," J. Med. Virol. 73: 486-493	
	C141	ISHIDA et al., 1978, "Sendai virus," Adv. Virus Res. 23: 349-383	
	C142	JOHNSON et al. 1997, Development of a humanized monoclonal antibody (MEDI-493) with potent in vitro and in vivo activity against respiratory syncytial virus. J Infect Dis. 176(5):1215-1224	
	C143	KARRON et al. 1996, Evaluation of a live attenuated bovine parainfluenza type 3 vaccine in two- to six-month-old infants. Pediatr Infect Dis J. 15(8):650-654	
	C144	KARRON et al. 1995 A live attenuated bovine parainfluenza virus type 3 vaccine is safe, infectious, immunogenic, and phenotypically stable in infants and children. J. Infec Dis. 171(5):1107-1114	
	C145	KAWAOKA et al., 1984, "Is virulence of H5N2 influenza viruses in chickens associated with loss of carbohydrate from the hemagglutinin?" Virology 139: 303-316	
	C146	KIDO et al., 1992, "Isolation and characterization of a novel trypsin-like protease found in rat bronchiolar epithelial Clara cells: a possible activator of the viral fusion glycoprotein," J. Biol. Chem. 267: 13573-13579	
	C147	KIDO et al., 1996, "Cellular proteases involved in the pathogenicity of enveloped animal viruses, human immunodeficiency virus, influenza virus A and Sendai virus," Adv. Enzyme Regul. 36: 325-47	
	C148	KLENK et al., 1988, "The molecular biology of influenza virus pathogenicity," Adv. Virus Res. 34: 247-281	
	C149	KLENK et al., 1994, "Host cell proteases controlling virus pathogenicity," Trends Microbiol. 2 (2): 39-43	
	C150	KLIPPMARK et al. 1990, Antigenic variation of human and bovine parainfluenza virus type 3 strains. J Gen Virol. 71 (Pt 7):1577-80	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

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Examiner Initials		(Include name of the author (in CAPITAL LETTERS), Title, Date, Pertinent Pages, Etc.)	T
	C151	KUNKEL et al. 1985, Rapid and efficient site-specific mutagenesis without phenotypic selection. Proc Natl Acad Sci U S A. 82(2):488-492	
	C152	LAMB, 1993, "Paramyxovirus fusion: A hypothesis for changes," Virology 197: 1-11	
	C153	MAGGI et al., 2003, "Human metapneumovirus associated with respiratory tract infections in a 3-year study of nasal swabs from infants in Italy," J. Clinical Microbiology 41: 2987-2991	
	C154	MORRISON, 2003, "Structure and function of a paramyxovirus fusion protein," Biochimica Et Biophysica Acta 1614: 73-84	
	C155	NAGAI et al., 1989, "Molecular biology of Newcastle disease virus," Prog. Vet. Microbiol. 5: 16-64	
	C156	New Vaccine Development, Establishing Priorities, Vol. 1, 1985, National Academy Press, Washington DC pp 397-409	
	C157	OOMENS and WERTZ, 2003, Recovery of infectious human respiratory syncytial virus lacking all transmembrane glycoprotein genes via trans-complementation. 12 th Int'l. Conf. on Negative Strand Viruses, Pisa, Italy, Abstr# 205	
	C158	OSTERHAUS et al., 2000, "Influenza B virus in seals," Science 288(5468):1051-3	
	C159	PEIRIS et al., 2003, "Children with respiratory disease associated with metapneumovirus in Hong Kong," Emerg. Infect. Dis. 9: 628-633	
	C160	PERET et al., 2004, "Sequence polymorphism of the predicted human metapneumovirus G glycoprotein," J. Infect. Dis. 85: 679-686	
	C161	RANDHAWA J.S., et al., 1996, "Nucleotide sequence of the gene encoding the viral polymers of avian pneumovirus," J. Gen. Virol. 77:3047-3051	
	C162	RUSSELL et al., 2001, "Membrane fusion machines of paramyxoviruses: capture of intermediates of fusion," EMBO J. 20: 4024-4034	
	C163	SCHEID et al., 1974, "Identification of the biological activities of paramyxovirus glycoproteins. Activation of cell fusion, hemolysis and infectivity by proteolytic cleavage of an inactive precursor protein of Sendai virus," Virology 57:475-490	
	C164	SCHEID et al., 1977, "Two disulfide linked polypeptide chains constitute the active F protein of paramyxoviruses," Virology 80: 54-66	
	C165	SCHICKLI et al., 2005, "An S101P substitution in the putative cleavage motif of the human metapneumovirus fusion protein is a major determinant for trypsin-independent growth in vero cells and does not alter tissue tropism in hamsters," J. Virol. 79(16):10678-89	
	C166	SCHMIDT et al., 2002, Mucosal immunization of Rhesus monkeys against respiratory syncytial virus subgroups A and B and human parainfluenza virus type 3 by using a live cDNA-derived vaccine based on a host range-attenuated bovine parainfluenza virus type 3 vector backbone. J. Virol. 76 :1089-1099	
	C167	SCHMIDT et al. 2000, Bovine parainfluenza virus type 3 (BPIV3) fusion and hemagglutinin-neuraminidase glycoproteins make an important contribution to the restricted replication of BPIV3 in primates. J Virol. 74(19):8922-8929	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials		(Include name of the author (in CAPITAL LETTERS), Title, Date, Pertinent Pages, Etc.)	T
	C168	SEAL BS. 2000, Avian pneumoviruses and emergence of a new type in the United States of America. Anim Health Res Rev. 1(1):67-72	
	C169	SEAL B.S. et al., 2000, "Fusion protein predicted amino acid sequence of the first US avian pneumovirus isolate and lack of heterogeneity among other US isolates," Virus Res. 66:139-147	
	C170	SHIBUTA, 1977, "Characterzation of bovine parainfluenza virus type 3," Microbiol. Immunol. 23(7)617-628	
	C171	SKIADOPoulos et al. 2001, A chimeric human-bovine parainfluenza virus type 3 expressing measles virus hemagglutinin is attenuated for replication but is still immunogenic in rhesus monkeys. J Virol. 75(21):10498-504	
	C172	SKIADOPoulos, 2004, "The two major human metapneumovirus genetic lineages are highly related antigenically, and the fusion (F) protein is a major contributor to this antigenic relatedness," J. Virol. 78: 6927-6937	
	C173	STOCKTON et al., 2002, "Human metapneumovirus as a cause of community-acquired respiratory illness," Emerg. Infect. Dis. 8, 897-901	
	C174	TAKASHI et al., 1984, "On the mechanism of energy transduction in myosin subfragment 1," PNAS USA 1984, 81:2060-2064	
	C175	TAO et al., 2000, "Replacement of the ectodomains of the hemagglutinin-neuraminidase and fusion glycoproteins of recombinant parainfluenza virus type 3 (PIV3) with their counterparts from PIV2 yields attenuated PIV2 vaccine candidates," J. Virol. 74(14):6448-58	
	C176	TASHIRO et al., 1983, "Pneumotropism of Sendai virus in relation to protease-mediated activation in mouse lungs," Infect. Immun. 39: 879-888	
	C177	TASHIRO et al., 1988, "Characterization of a pantrropic variant of Sendai virus derived from a host-range mutant," Virology 165: 577-583	
	C178	TOQUIN et al., 2003, "Subgroup C avian metapneumovirus (MPV) and the recently isolated human MPV exhibit a common organization but have extensive sequence divergence in their putative SH and G genes," J. of General Virology. 84: 2169-2178	
	C179	TOWATARI et al., 2002, "Identification of ectopic anionic trypsin I in rat lungs potentiating pneumotropic virus infectivity and increased enzyme level after virus infection," Eur. J. Biochem. 269: 2613-2621	
	C180	TOYODA et al., 1987, "Structural comparison of the cleavage-activation site of the fusion glycoprotein between virulent and avirulent strains of Newcastle disease virus," Virology 158: 242-247	
	C181	VAN DEN HOOGEN et al., 2003, "Prevalence and clinical symptoms of human metapneumovirus infection in hospitalized patients," J. Infect. Dis. 188: 1571-1577	
	C182	VAN DEN HOOGEN et al., 2004, "Clinical impact and diagnosis of hMPV infections," Pediatric Infectious Disease Journal, 23: S25-32	
	C183	VAN DEN HOOGEN et al., 2004, "Antigenic and genetic variability of human metapneumoviruses," Emerging Infectious Diseases 10: 658-666	
	C184	VAN WYKE COELINGH et al. 1990, Antibody responses of humans and nonhuman primates to individual	

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		antigenic sites of the hemagglutinin-neuraminidase and fusion glycoproteins after primary infection or reinfection with parainfluenza type 3 virus. J Virol. 64(8):3833-3843	
C185	WANG, E. et al. 2003, "Both heptad repeats of human respiratory syncytial virus fusion protein are potent inhibitors of viral fusion," BBRC. 302:469-475		
C186	WHITE, 1990, "Viral and cellular membrane fusion proteins," Annual Review Physiology 52: 675-697		
C187	WILLIAMS et al., 2004, "Human metapneumovirus and lower respiratory tract disease in otherwise healthy infants and children," N. Engl. J. Med. 350: 443-450		
C188	WILLIAMS et al., 2006, "The role of human metapneumovirus in upper respiratory tract infections in children: a 20-year experience," J. Infec. Dis. 193(3):387-95		
C189	WOLF et al., D., 2003, "High seroprevalence of human metapneumovirus among young children in Israel," J. Inf. Dis. 188: 1865-1867		

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A14		2004-0005544	1/8/2004	Fouchier et al.	
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B23		WO 01/04320	1/18/01	The Government of the U.S.A.		
B24		WO 03/043587	5/30/03	The United States of America		
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	C116	BIACCHESI et al., 2003, "Genetic diversity between human metapneumovirus subgroups," <i>Virology</i> 315: 1-9	
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	C121	CLEMENTS et al. 1991, Evaluation of bovine, cold-adapted human, and wild-type human parainfluenza type 3 viruses in adult volunteers and in chimpanzees. <i>J Clin Microbiol.</i> 29(6):1175-1182	
	C122	CHANOCK et al. 1989, "Respiratory Syncytial Virus" Chapter 20 in Evans, Ed., 1989, <i>Viral Infections of Humans: Epidemiology and Control</i> , 3 rd ed., Plenum Medical Book, New York, pp. 525-544	
	C123	COLLINS et al., 1996, <i>Fields Virology</i> , ed. V.N. Knipe, Howley, P.M., Philadelphia: Lippencott-Raven. pp. 1313-1351, "Respiratory Syncytial Virus" Chapter 44 3 rd edition	
	C124	COLLINS et al., 1991, "Post translational processing and oligomerization of the fusion glycoprotein of human respiratory syncytial virus," <i>J. Gen. Virol.</i> 72: 3095-3101	
	C125	COLLINS et al., 1993, "Deduced amino acid sequences at the fusion protein cleavage site of Newcastle disease viruses showing variation in antigenicity and pathogenicity," <i>Arch. Virol.</i> 128: 363-370	
	C126	COLLINS et al., 2001, "Respiratory Syncytial Virus," (Eds.), <i>Fields Virology</i> , fourth ed. Lippincott Williams and Wilkins, Philadelphia, PA, pp. 1443-1486, Chapter 45	
	C127	COLLINS, 1991, "The molecular biology of human respiratory syncytial virus (RSV) of the genus pneumovirus," <i>The Paramyxoviruses</i> , D.W. Kingsbury, ed. Plenum Press, New York, pp. 103-153(62)	
	C128	COOK et al., 1999, "Preliminary antigenic characterization of an avian pneumovirus isolated from Turkeys in Colorado, USA," <i>Avian Pathol.</i> 28:607-617	
	C129	COOK JK, 2000, "Avian Rhinotracheitis," <i>Rev. Sci. Tech.</i> 19(2):602-613	

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NON PATENT LITERATURE DOCUMENTS

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C130	CROOKSHANKS and BELSHE, 1984, Evaluation of cold-adapted and temperature-sensitive mutants of parainfluenza virus type 3 in weanling hamsters. <i>J Med Virol.</i> 13(3):243-249	
C131	DIMOCK and COLLINS, 1993, Rescue of synthetic analogs of genomic RNA and replicative-intermediate RNA of human parainfluenza virus type 3. <i>J Virol.</i> 67(5):2772-8	
C132	BREESE HALL <i>et al.</i> eds., 1987, <i>Textbook of Pediatric Infectious Diseases</i> , WB Saunders, Co. Philadelphia, pp 1653-1675	
C133	GLICKMAN <i>et al.</i> , 1988, "Quantitative basic residue requirements in the cleavage-activation site of the fusion glycoprotein as a determinant of virulence for Newcastle disease virus," <i>J. Virol.</i> 62: 354-356	
C134	GONZALEZ-REYES <i>et al.</i> , 2001, "Cleavage of the human respiratory syncytial virus fusion protein at two distinct sites is required for activation of membrane fusion," <i>PNAS</i> 98: 9859-9864	
C135	HALLER <i>et al.</i> 2000, Expression of the surface glycoproteins of human parainfluenza virus type 3 by bovine parainfluenza virus type 3, a novel attenuated virus vaccine vector. <i>J Virol.</i> 74(24):11626-11635	
C136	HAMELIN <i>et al.</i> , 2004, "Human metapneumovirus: a new player among respiratory viruses," <i>Clinical Infectious Diseases</i> 38: 983-990	
C137	HERFST, 2004, "Recovery of human metapneumovirus genetic lineages A and B from cloned cDNA," <i>J. Virol.</i> 78:8264-8270	
C138	HOFFMANN <i>et al.</i> 2000, Unidirectional RNA polymerase I-polymerase II transcription system for the generation of influenza A virus from eight plasmids. <i>J Gen Virol.</i> (81):2843-2847	
C139	HOWE, 2002, "Australian find suggests worldwide reach for metapneumovirus," <i>Lancet Infect. Dis.</i> 2:202	
C140	IJPMA <i>et al.</i> , 2004, "Human metapneumovirus infection in hospital referred South African children," <i>J. Med. Virol.</i> 73: 486-493	
C141	ISHIDA <i>et al.</i> , 1978, "Sendai virus," <i>Adv. Virus Res.</i> 23: 349-383	
C142	JOHNSON <i>et al.</i> 1997, "Development of a humanized monoclonal antibody (MEDI-493) with potent in vitro and in vivo activity against respiratory syncytial virus", <i>J Infect Dis.</i> 176(5):1215-1224	
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C144	KARRON <i>et al.</i> 1995 A live attenuated bovine parainfluenza virus type 3 vaccine is safe, infectious, immunogenic, and phenotypically stable in infants and children. <i>J. Infect Dis.</i> 171(5):1107-1114	
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C146	KIDO <i>et al.</i> , 1992, "Isolation and characterization of a novel trypsin-like protease found in rat bronchiolar epithelial Clara cells: a possible activator of the viral fusion glycoprotein," <i>J. Biol. Chem.</i> 267: 13573-13579	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

EXAMINER	DATE CONSIDERED
----------	-----------------

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LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO.	APPLICATION NO.
	7682-108-999	10/722,045
	APPLICANT	
	DeJong <i>et al.</i>	
	FILING DATE	ART UNIT
	November 25, 2003	1645

NON PATENT LITERATURE DOCUMENTS

Examiner Initials		(Include name of the author (in CAPITAL LETTERS), Title, Date, Pertinent Pages, Etc.)	T
	C147	KIDO et al., 1996, "Cellular proteases involved in the pathogenicity of enveloped animal viruses, human immunodeficiency virus, influenza virus A and Sendai virus," Advance Enzyme Regul. 36: 325-47	
	C148	KLENK et al., 1988, "The molecular biology of influenza virus pathogenicity," Adv. Virus Res. 34: 247-281	
	C149	KLENK et al., 1994, "Host cell proteases controlling virus pathogenicity," Trends Microbiol. 2 (2): 39-43	
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	C151	KUNKEL et al. 1985, Rapid and efficient site-specific mutagenesis without phenotypic selection. Proc Natl Acad Sci U S A. 82(2):488-492	
	C152	LAMB, 1993, "Paramyxovirus fusion: A hypothesis for changes," Virology 197: 1-11	
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	C154	MORRISON, 2003, "Structure and function of a paramyxovirus fusion protein," Biochimica Et Biophysica Acta 1614: 73-84	
	C155	NAGAI et al., 1989, "Molecular biology of Newcastle disease virus," Prog. Vet. Microbiol. 5: 16-64	
	C156	New Vaccine Development, Establishing Priorities, Vol. 1, 1985, National Academy Press, Washington DC pp 397-409	
	C157	OOMENS and WERTZ, 2003, Recovery of infectious human respiratory syncytial virus lacking all transmembrane glycoprotein genes via trans-complementation. 12 th Int'l. Conf. on Negative Strand Viruses, Pisa, Italy, Abstr# 205	
	C158	OSTERHAUS et al., 2000, "Influenza B virus in seals," Science 288(5468):1051-1053	
	C159	PEIRIS et al., 2003, "Children with respiratory disease associated with metapneumovirus in Hong Kong," Emerg. Infect. Dis. 9: 628-633	
	C160	PERET et al., 2004, "Sequence polymorphism of the predicted human metapneumovirus G glycoprotein," J. 85: 679-686	
	C161	RANDHAWA J.S., et al., 1996, "Nucleotide sequence of the gene encoding the viral polymers of avian pneumovirus," J. Gen. Virol. 77:3047-3051	
	C162	RUSSELL et al., 2001, "Membrane fusion machines of paramyxoviruses: capture of intermediates of fusion," EMBO J. 20: 4024-4034	
	C163	SCHEID et al., 1974, "Identification of the biological activities of paramyxovirus glycoproteins. Activation of cell fusion, hemolysis and infectivity by proteolytic cleavage of an inactive precursor protein of Sendai virus," Virology 57:475-490	
	C164	SCHEID et al., 1977, "Two disulfide linked polypeptide chains constitute the active F protein of paramyxoviruses," Virology 80: 54-66	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

EXAMINER	DATE CONSIDERED
----------	-----------------

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November 25, 2003	1645	

NON PATENT LITERATURE DOCUMENTS

Examiner Initials		(Include name of the author (in CAPITAL LETTERS), Title, Date, Pertinent Pages, Etc.)	T
	C165	SCHICKLI <i>et al.</i> , 2005, "An S101P substitution in the putative cleavage motif of the human metapneumovirus fusion protein is a major determinant for trypsin-independent growth in vero cells and does not alter tissue tropism in hamsters," <i>J. Virol.</i> 79(16):10678-10689	
	C166	SCHMIDT <i>et al.</i> , 2002, Mucosal immunization of Rhesus monkeys against respiratory syncytial virus subgroups A and B and human parainfluenza virus type 3 by using a live cDNA-derived vaccine based on a host range-attenuated bovine parainfluenza virus type 3 vector backbone. <i>J. Virol.</i> 76 :1089-1099	
	C167	SCHMIDT <i>et al.</i> 2000, Bovine parainfluenza virus type 3 (BPIV3) fusion and hemagglutinin-neuraminidase glycoproteins make an important contribution to the restricted replication of BPIV3 in primates. <i>J Virol.</i> 74(19):8922-8929	
	C168	SEAL BS. 2000, Avian pneumoviruses and emergence of a new type in the United States of America. <i>Anim Health Res Rev.</i> 1(1):67-72	
	C169	SEAL B.S. <i>et al.</i> , 2000, "Fusion protein predicted amino acid sequence of the first US avian pneumovirus isolate and lack of heterogeneity among other US isolates," <i>Virus Res.</i> 66:139-147	
	C170	SHIBUTA, 1977, "Characterzation of bovine parainfluenza virus type 3," <i>Microbiol. Immunol.</i> 23(7)617-628	
	C171	SKIADOPoulos <i>et al.</i> 2001, A chimeric human-bovine parainfluenza virus type 3 expressing measles virus hemagglutinin is attenuated for replication but is still immunogenic in rhesus monkeys. <i>J Virol.</i> 75(21):10498-10504	
	C172	SKIADOPoulos, 2004, "The two major human metapneumovirus genetic lineages are highly related antigenically, and the fusion (F) protein is a major contributor to this antigenic relatedness," <i>J. Virol.</i> 78: 6927-6937	
	C173	STOCKTON <i>et al.</i> , 2002, "Human metapneumovirus as a cause of community-acquired respiratory illness," <i>Emerg. Infect. Dis.</i> 8, 897-901	
	C174	TAKASHI <i>et al.</i> , 1984, "On the mechanism of energy transduction in myosin subfragment 1," <i>PNAS USA</i> 1984, 81:2060-2064	
	C175	TAO <i>et al.</i> , 2000, "Replacement of the ectodomains of the hemagglutinin-neuraminidase and fusion glycoproteins of recombinant parainfluenza virus type 3 (PIV3) with their counterparts from PIV2 yields attenuated PIV2 vaccine candidates," <i>J. Virol.</i> 74(14):6448-6458	
	C176	TASHIRO <i>et al.</i> , 1983, "Pneumotropism of Sendai virus in relation to protease-mediated activation in mouse lungs," <i>Infect. Immun.</i> 39: 879-888	
	C177	TASHIRO <i>et al.</i> , 1988, "Characterization of a pantropic variant of Sendai virus derived from a host-range mutant," <i>Virology</i> 165: 577-583	
	C178	TOQUIN <i>et al.</i> , 2003, "Subgroup C avian metapneumovirus (MPV) and the recently isolated human MPV exhibit a common organization but have extensive sequence divergence in their putative SH and G genes," <i>J. of General Virology.</i> 84: 2169-2178	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

EXAMINER	DATE CONSIDERED
----------	-----------------

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials		(Include name of the author (in CAPITAL LETTERS), Title, Date, Pertinent Pages, Etc.)	T
	C179	TOWATARI <i>et al.</i> , 2002, "Identification of ectopic anionic trypsin I in rat lungs potentiating pneumotropic virus infectivity and increased enzyme level after virus infection," Eur. J. Biochem. 269: 2613-2621	
	C180	TOYODA <i>et al.</i> , "1987, "Structural comparison of the cleavage-activation site of the fusion glycoprotein between virulent and avirulent strains of Newcastle disease virus," Virology 158: 242-247	
	C181	VAN DEN HOOGEN <i>et al.</i> , 2003, "Prevalence and clinical symptoms of human metapneumovirus infection in hospitalized patients," J. Infect. Dis. 188: 1571-1577	
	C182	VAN DEN HOOGEN <i>et al.</i> , 2004, "Clinical impact and diagnosis of human metapneumovirus infections," Pediatric Infectious Disease Journal, 23: S25-32	
	C183	VAN DEN HOOGEN <i>et al.</i> , 2004, "Antigenic and genetic variability of human metapneumoviruses," Emerging Infectious Diseases 10: 658-666	
	C184	VAN WYKE COELINGH <i>et al.</i> 1990, Antibody responses of humans and nonhuman primates to individual antigenic sites of the hemagglutinin-neuraminidase and fusion glycoproteins after primary infection or reinfection with parainfluenza type 3 virus. J Virol. 64(8):3833-3843	
	C185	WANG, E. <i>et al.</i> 2003, "Both heptad repeats of human respiratory syncytial virus fusion protein are potent inhibitors of viral fusion," Biochem. Biophys. Res. 302:469-475	
	C186	WHITE, 1990, "Viral and cellular membrane fusion proteins," Annual Review Physiology 52: 675-697	
	C187	WILLIAMS <i>et al.</i> , 2004, "Human metapneumovirus and lower respiratory tract disease in otherwise healthy infants and children," N. Engl. J. Med. 350: 443-450	
	C188	WILLIAMS <i>et al.</i> , 2006, "The role of human metapneumovirus in upper respiratory tract infections in children: a 20-year experience," J. Infec. Dis. 193(3):387-395	
	C189	WOLF <i>et al.</i> , 2003, "High seroprevalence of human metapneumovirus among young children in Israel," J. Infec. Dis. 188: 1865-1867	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

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	DeJong et al.	
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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	PAGES, COLUMNS, LINES, WHERE RELEVANT PASSAGES OR RELEVANT FIGURES APPEAR
A05	5,869,036	2/9/99	Belshe et al.	
A06	6,180,398	1/30/01	Klein et al.	
A07	2002-0155581	10/24/02	Murphy et al.	
A08	2004-0142448	7/22/04	Murphy et al.	
A09	2004-0241188	12/2/04	Collins et al.	
A10	2004-0229219	1/08/04	Fouchier et al.	
A11	2004-0005545	01/08/2004	Fouchier et al.	
A12	2003-0232326	12/18/2003	Fouchier et al.	
A13	2003-0232061	12/18/2003	Fouchier et al.	
A14	2004-0005544	1/8/2004	Fouchier et al.	
A15	2005-0118195	6/2/2005	De Jong et al.	
A16	2005-0142148	06/30/2005	Fouchier et al.	
A17	2005-0019891	01/27/2005	Fouchier et al.	

FOREIGN PATENT DOCUMENTS

	FOREIGN PATENT DOCUMENT COUNTRY CODE, NUMBER, KIND CODE (IF KNOWN)	DATE	NAME	PAGES, COLUMNS, LINES, WHERE RELEVANT PASSAGES OR RELEVANT FIGURES APPEAR	T
B18	EP 01200213.5	1/19/01	ViroClinics B.V.		
B19	EP 01203985.5	10/18/01	ViroClinics B.V.		
B20	WO 89/10405	11/02/89	The Upjohn Company		
B21	WO 93/14207	7/22/93	Connaught Laboratories		
B22	WO 97/34008	9/18/97	Cyanamid Iberica, S.A.		
B23	WO 01/04320	1/18/01	The Government of the U.S.A.		
B24	WO 03/043587	5/30/03	The United States of America		
B25	WO 03/097089	11/27/03	Lohmann Animal Health GmbH & Co		
B26	WO 04/057021	7/08/04	Universite Laval		

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EXAMINER NYI-4036391v1	DATE CONSIDERED
---------------------------	-----------------

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	7682-108-999	10/722,045
	APPLICANT DeJong et al.	
	FILING DATE November 25, 2003	ART UNIT 1645

NON PATENT LITERATURE DOCUMENTS

Examiner Initials		(Include name of the author (in CAPITAL LETTERS), Title, Date, Pertinent Pages, Etc.)	T
	C113	BAILLY et al., 2000, "recombinant human parainfluenza virus type 3 (PIV3) in which the nucleocapsid N protein has been replaced by that of bovine PIV3 is attenuated in primates," <i>J. Virol.</i> 74(7):3188-95	
	C114	BARR, 1991, "Mammalian subtilisins: the long-sought dibasic processing endoproteases," <i>Cell</i> 66: 1-3	
	C115	BASTIEN et al., 2003, "Human metapneumovirus infection in the Canadian population," <i>J. Clin. Microbiol.</i> 41: 4642-4646	
	C116	BIACCHESI et al., 2003, "Genetic diversity between human metapneumovirus subgroups," <i>Virology</i> 315: 1-9	
	C117	BOIVIN et al., 2002, "Virological features and clinical manifestations associated with human metapneumovirus: a new paramyxovirus responsible for acute respiratory-tract infections in all age groups," <i>J. Infect. Dis.</i> 186: 1330-1334	
	C118	BOIVIN et al., 2003, "Human metapneumovirus infections in hospitalized children," <i>Emerg. Infect. Dis.</i> 9: 634-640	
	C119	BOSCH et al., 1981, "Proteolytic cleavage of influenza virus hemagglutinin. Primary structure of the connecting peptide between HA1 and HA2 determines proteolytic cleavability and pathogenicity of avian influenza viruses," <i>Virology</i> 113: 725-735	
	C120	BREKER-KLASSEN et al. 1996, Comparisons of the F and HN gene sequences of different strains of bovine parainfluenza virus type 3: relationship to phenotype and pathogenicity. <i>Can J. Vet. Res.</i> 60(3):228-236	
	C121	CLEMENTS et al. 1991, Evaluation of bovine, cold-adapted human, and wild-type human parainfluenza type 3 viruses in adult volunteers and in chimpanzees. <i>J Clin Microbiol.</i> 29(6):1175-1182	
	C122	CHANOCK et al. 1989, "Respiratory Syncytial Virus" Chapter 20 in Evans, Ed., 1989, <i>Viral Infections of Humans: Epidemiology and Control</i> , 3 rd ed., Plenum Medical Book, New York, pp. 525-544	
	C123	COLLINS et al., 1996, <i>Fields Virology</i> , ed. V.N. Knipe, Howley, P.M., Philadelphia: Lippencott-Raven. pp. 1313-1351	
	C124	COLLINS et al., 1991, "Post translational processing and oligomerization of the fusion glycoprotein of human respiratory syncytial virus," <i>J. Gen. Virol.</i> 72: 3095-3101	
	C125	COLLINS et al., 1993, "Deduced amino acid sequences at the fusion protein cleavage site of Newcastle disease viruses showing variation in antigenicity and pathogenicity," <i>Arch. Virol.</i> 128: 363-370	
	C126	COLLINS et al., 2001, "Respiratory Syncytial Virus," (Eds.), <i>Fields Virology</i> , fourth ed. Lippincott Williams and Wilkins, Philadelphia, PA, pp. 1443-1486	
	C127	COLLINS, 1990, "The molecular biology of human respiratory syncytial virus (RSV) of the genus pneumovirus," <i>The Paramyxoviruses</i> , D.W. Kingsbury, ed. Plenum Press, New York, pp. 103-153	
	C128	COOK et al., 1999, "Preliminary antigenic characterization of an avian pneumovirus isolated from Turkeys in Colorado, USA," <i>Avian Pathol.</i> 28:607-617	
	C129	COOK JK, 2000, "Avian rhinotracheitis," <i>Rev. Sci. Tech.</i> 19(2):602-613	
	C130	CROOKSHANKS and BELSHE, 1984, Evaluation of cold-adapted and temperature-sensitive mutants of parainfluenza virus type 3 in weanling hamsters. <i>J Med Virol.</i> 13(3):243-249	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

EXAMINER	DATE CONSIDERED
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	DeJong et al.	
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NON PATENT LITERATURE DOCUMENTS

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	C131	DIMOCK and COLLINS, 1993, Rescue of synthetic analogs of genomic RNA and replicative-intermediate RNA of human parainfluenza virus type 3. J Virol. 67(5):2772-8	
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	C133	GLICKMAN et al., 1988, "Quantitative basic residue requirements in the cleavage-activation site of the fusion glycoprotein as a determinant of virulence for Newcastle disease virus," J. Virol. 62: 354-356	
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	C135	HALLER et al. 2000, Expression of the surface glycoproteins of human parainfluenza virus type 3 by bovine parainfluenza virus type 3, a novel attenuated virus vaccine vector. J Virol. 74(24):11626-11635	
	C136	HAMELIN et al., 2004, "Human metapneumovirus: a new player among respiratory viruses," Clinical Infectious Diseases 38: 983-990	
	C137	HERFST, 2004, "Recovery of human metapneumovirus genetic lineages A and B from cloned cDNA," J. Virol. 78:8264-8270	
	C138	HOFFMANN et al. 2000, Unidirectional RNA polymerase I-polymerase II transcription system for the generation of influenza A virus from eight plasmids. J Gen Virol. (Pt 12):2843-2847	
	C139	HOWE, 2002, "Australian find suggests worldwide reach for metapneumovirus," Lancet Infect. Dis. 2:202	
	C140	IJPMA et al., 2004, "Human metapneumovirus infection in hospital referred South African children," J. Med. Virol. 73: 486-493	
	C141	ISHIDA et al., 1978, "Sendai virus," Adv. Virus Res. 23: 349-383	
	C142	JOHNSON et al. 1997, Development of a humanized monoclonal antibody (MEDI-493) with potent in vitro and in vivo activity against respiratory syncytial virus. J Infect Dis. 176(5):1215-1224	
	C143	KARRON et al. 1996, Evaluation of a live attenuated bovine parainfluenza type 3 vaccine in two- to six-month-old infants. Pediatr Infect Dis J. 15(8):650-654	
	C144	KARRON et al. 1995 A live attenuated bovine parainfluenza virus type 3 vaccine is safe, infectious, immunogenic, and phenotypically stable in infants and children. J. Infec Dis. 171(5):1107-1114	
	C145	KAWAOKA et al., 1984, "Is virulence of H5N2 influenza viruses in chickens associated with loss of carbohydrate from the hemagglutinin?" Virology 139: 303-316	
	C146	KIDO et al., 1992, "Isolation and characterization of a novel trypsin-like protease found in rat bronchiolar epithelial Clara cells: a possible activator of the viral fusion glycoprotein," J. Biol. Chem. 267: 13573-13579	
	C147	KIDO et al., 1996, "Cellular proteases involved in the pathogenicity of enveloped animal viruses, human immunodeficiency virus, influenza virus A and Sendai virus," Adv. Enzyme Regul. 36: 325-47	
	C148	KLENK et al., 1988, "The molecular biology of influenza virus pathogenicity," Adv. Virus Res. 34: 247-281	
	C149	KLENK et al., 1994, "Host cell proteases controlling virus pathogenicity," Trends Microbiol. 2 (2): 39-43	
	C150	KLIPPMARK et al. 1990, Antigenic variation of human and bovine parainfluenza virus type 3 strains. J Gen Virol. 71 (Pt 7):1577-80	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials	(Include name of the author (in CAPITAL LETTERS), Title, Date, Pertinent Pages, Etc.)	T
C151	KUNKEL et al. 1985, Rapid and efficient site-specific mutagenesis without phenotypic selection. Proc Natl Acad Sci U S A. 82(2):488-492	
C152	LAMB, 1993, "Paramyxovirus fusion: A hypothesis for changes," Virology 197: 1-11	
C153	MAGGI et al., 2003, "Human metapneumovirus associated with respiratory tract infections in a 3-year study of nasal swabs from infants in Italy," J. Clinical Microbiology 41: 2987-2991	
C154	MORRISON, 2003, "Structure and function of a paramyxovirus fusion protein," Biochimica Et Biophysica Acta 1614: 73-84	
C155	NAGAI et al., 1989, "Molecular biology of Newcastle disease virus," Prog. Vet. Microbiol. 5: 16-64	
C156	New Vaccine Development, Establishing Priorities, Vol. 1, 1985, National Academy Press, Washington DC pp 397-409	
C157	OOMENS and WERTZ, 2003, Recovery of infectious human respiratory syncytial virus lacking all transmembrane glycoprotein genes via trans-complementation. 12 th Int'l. Conf. on Negative Strand Viruses, Pisa, Italy, Abstr# 205	
C158	OSTERHAUS et al., 2000, "Influenza B virus in seals," Science 288(5468):1051-3	
C159	PEIRIS et al., 2003, "Children with respiratory disease associated with metapneumovirus in Hong Kong," Emerg. Infect. Dis. 9: 628-633	
C160	PERET et al., 2004, "Sequence polymorphism of the predicted human metapneumovirus G glycoprotein," J. Infect. Dis. 85: 679-686	
C161	RANDHAWA J.S., et al., 1996, "Nucleotide sequence of the gene encoding the viral polymers of avian pneumovirus," J. Gen. Virol. 77:3047-3051	
C162	RUSSELL et al., 2001, "Membrane fusion machines of paramyxoviruses: capture of intermediates of fusion," EMBO J. 20: 4024-4034	
C163	SCHEID et al., 1974, "Identification of the biological activities of paramyxovirus glycoproteins. Activation of cell fusion, hemolysis and infectivity by proteolytic cleavage of an inactive precursor protein of Sendai virus," Virology 57:475-490	
C164	SCHEID et al., 1977, "Two disulfide linked polypeptide chains constitute the active F protein of paramyxoviruses," Virology 80: 54-66	
C165	SCHICKLI et al., 2005, "An S101P substitution in the putative cleavage motif of the human metapneumovirus fusion protein is a major determinant for trypsin-independent growth in vitro cells and does not alter tissue tropism in hamsters," J. Virol. 79(16):10678-89	
C166	SCHMIDT et al., 2002, Mucosal immunization of Rhesus monkeys against respiratory syncytial virus subgroups A and B and human parainfluenza virus type 3 by using a live cDNA-derived vaccine based on a host range-attenuated bovine parainfluenza virus type 3 vector backbone. J. Virol. 76 :1089-1099	
C167	SCHMIDT et al. 2000, Bovine parainfluenza virus type 3 (BPIV3) fusion and hemagglutinin-neuraminidase glycoproteins make an important contribution to the restricted replication of BPIV3 in primates. J Virol. 74(19):8922-8929	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

EXAMINER	DATE CONSIDERED
NYI-4036391vl	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO.	APPLICATION NO.
	7682-108-999	10/722,045
	APPLICANT	
	DeJong et al.	
	FILING DATE	ART UNIT
	November 25, 2003	1645

NON PATENT LITERATURE DOCUMENTS

Examiner Initials	(Include name of the author (in CAPITAL LETTERS), Title, Date, Pertinent Pages, Etc.)	T
C168	SEAL BS. 2000, Avian pneumoviruses and emergence of a new type in the United States of America. Anim Health Res Rev. 1(1):67-72	
C169	SEAL B.S. et al., 2000, "Fusion protein predicted amino acid sequence of the first US avian pneumovirus isolate and lack of heterogeneity among other US isolates," Virus Res. 66:139-147	
C170	SHIBUTA, 1977, "Characterzation of bovine parainfluenza virus type 3," Microbiol. Immunol. 23(7)617-628	
C171	SKIADOPoulos et al. 2001, A chimeric human-bovine parainfluenza virus type 3 expressing measles virus hemagglutinin is attenuated for replication but is still immunogenic in rhesus monkeys. J Virol. 75(21):10498-504	
C172	SKIADOPoulos, 2004, "The two major human metapneumovirus genetic lineages are highly related antigenically, and the fusion (F) protein is a major contributor to this antigenic relatedness," J. Virol. 78: 6927-6937	
C173	STOCKTON et al., 2002, "Human metapneumovirus as a cause of community-acquired respiratory illness," Emerg. Infect. Dis. 8, 897-901	
C174	TAKASHI et al., 1984, "On the mechanism of energy transduction in myosin subfragment 1," PNAS USA 1984, 81:2060-2064	
C175	TAO et al., 2000, "Replacement of the ectodomains of the hemagglutinin-neuraminidase and fusion glycoproteins of recombinant parainfluenza virus type 3 (PIV3) with their counterparts from PIV2 yields attenuated PIV2 vaccine candidates," J. Virol. 74(14):6448-58	
C176	TASHIRO et al., 1983, "Pneumotropism of Sendai virus in relation to protease-mediated activation in mouse lungs," Infect. Immun. 39: 879-888	
C177	TASHIRO et al., 1988, "Characterization of a pan tropic variant of Sendai virus derived from a host-range mutant," Virology 165: 577-583	
C178	TOQUIN et al., 2003, "Subgroup C avian metapneumovirus (MPV) and the recently isolated human MPV exhibit a common organization but have extensive sequence divergence in their putative SH and G genes," J. of General Virology. 84: 2169-2178	
C179	TOWATARI et al., 2002, "Identification of ectopic anionic trypsin I in rat lungs potentiating pneumotropic virus infectivity and increased enzyme level after virus infection," Eur. J. Biochem. 269: 2613-2621	
C180	TOYODA et al., 1987, "Structural comparison of the cleavage-activation site of the fusion glycoprotein between virulent and avirulent strains of Newcastle disease virus," Virology 158: 242-247	
C181	VAN DEN HOOGEN et al., 2003, "Prevalence and clinical symptoms of human metapneumovirus infection in hospitalized patients," J. Infect. Dis. 188: 1571-1577	
C182	VAN DEN HOOGEN et al., 2004, "Clinical impact and diagnosis of hMPV infections," Pediatric Infectious Disease Journal, 23: S25-32	
C183	VAN DEN HOOGEN et al., 2004, "Antigenic and genetic variability of human metapneumoviruses," Emerging Infectious Diseases 10: 658-666	
C184	VAN WYKE COELINGH et al. 1990, Antibody responses of humans and nonhuman primates to individual	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

EXAMINER NYI-4036391v1	DATE CONSIDERED
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	DeJong et al.	
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	November 25, 2003	1645

NON PATENT LITERATURE DOCUMENTS

Examiner Initials		(Include name of the author (in CAPITAL LETTERS), Title, Date, Pertinent Pages, Etc.)	T
		antigenic sites of the hemagglutinin-neuraminidase and fusion glycoproteins after primary infection or reinfection with parainfluenza type 3 virus. J Virol. 64(8):3833-3843	
C185	WANG, E. et al. 2003, "Both heptad repeats of human respiratory syncytial virus fusion protein are potent inhibitors of viral fusion," BBRC. 302:469-475		
C186	WHITE, 1990, "Viral and cellular membrane fusion proteins," Annual Review Physiology 52: 675-697		
C187	WILLIAMS et al., 2004, "Human metapneumovirus and lower respiratory tract disease in otherwise healthy infants and children," N. Engl. J. Med. 350: 443-450		
C188	WILLIAMS et al., 2006, "The role of human metapneumovirus in upper respiratory tract infections in children: a 20-year experience," J. Infec. Dis. 193(3):387-95		
C189	WOLF et al., D., 2003, "High seroprevalence of human metapneumovirus among young children in Israel," J. Inf. Dis. 188: 1865-1867		

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /MH/

EXAMINER NYI-4036391vl	/Myron Hill/	DATE CONSIDERED	08/11/2008
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